

HFUS 3 BOU 222200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 053

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 22 FEB 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 21/2100
TO 22/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE. REGION 4421
(N15E11) PRODUCED AN M1/1N FLARE AT 0116Z WITH MINOR RADIO
BURSTS. NUMEROUS CLASS C FLARES HAVE OCCURRED, PRIMARILY FROM
REGION 4421 AND NEW REGION 4423 (S12E78). REGION 4421 STILL
REMAINS COMPLEX WITH A BETA GAMMA DELTA CONFIGURATION. THE
PENUMBRAE OF REGION 4422 (N11E37) HAVE SEPARATED; THEREFORE,
THIS REGION NO LONGER HAS A DELTA CONFIGURATION. FILAMENTS
ASSOCIATED WITH THESE TWO REGIONS ARE ACTIVE AND MAY
PRECIPITATE A SIGNIFICANT FLARE IN EITHER OR BOTH REGIONS.
REGION 4423 IS CLOSE TO THE LIMB; HOWEVER, ITS SUNSPOT
STRUCTURE IS ATYPICAL WITH A 6 DEGREE N-S EXTENT. REGION 4420
(S19W29) HAS GROWN TODAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
REMAIN MODERATE. A SIGNIFICANT FLARE IS POSSIBLE FROM EITHER OR
BOTH OF REGIONS 4421/4422.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 21/2100Z TO 22/2100Z:
THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED. THE SATELLITE PROTON
EVENT CONTINUES WITH THE GT 10 MEV AT 15 P/CM2/SEC/STER AT
22/2100Z.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS
EXPECTED TO BE UNSETTLED ON 23 FEBRUARY AND SLIGHTLY ACTIVE THE
BALANCE OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 23 FEB-25 FEB

CLASS M 90/90/90

CLASS X 20/20/20

PROTON 10/10/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 22 FEB 162

~~PREDICTED 23 FEB-25 FEB 170/175/177~~

90 DAY MEAN 22 FEB 111

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 21 FEB 011/018

ESTIMATED AFR/AP 22 FEB 009/015

PREDICTED AFR/AP 23 FEB-25 FEB 010/015-015/020-015/020

SOLTERWARN

BT